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     FILE 'REGISTRY' ENTERED AT 12:56:52 ON 07 AUG 2009
L1              STRUCTURE UPLOADED
L2           50 S L1
L3              STRUCTURE UPLOADED
L4           50 S L3
L5         1636 S L3 SSS FULL

     FILE 'HCAPLUS' ENTERED AT 12:58:23 ON 07 AUG 2009
L6         9084 S L5
L7      1230959 S OLIGONUCLEOTIDE OR DNA OR RNA OR PHOSPHORAMIDITE
L8          112 S L6 AND L7
L9           80 S L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

     FILE 'STNGUIDE' ENTERED AT 12:59:16 ON 07 AUG 2009

     FILE 'HCAPLUS' ENTERED AT 13:01:55 ON 07 AUG 2009
L10      164283 S (SOLID SUPPORT) OR (SOLID PHASE) OR BEAD OR PHOSPHORAMIDITE
L11           4 S L9 AND L10
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=> file registry
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.22       0.22

FILE 'REGISTRY' ENTERED AT 12:56:52 ON 07 AUG 2009
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    5 AUG 2009  HIGHEST RN 1173150-47-4
DICTIONARY FILE UPDATES:   5 AUG 2009  HIGHEST RN 1173150-47-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\STNEXP\Queries\10539625saccharin.str
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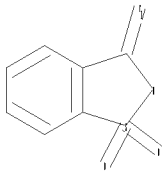

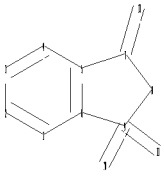

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10 11 13
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
7-13 9-10 9-11
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
5-7 6-9 7-8 7-13 8-9 9-10 9-11
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 13:CLASS

L1 STRUCTURE UPLOADED

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=> s l1
SAMPLE SEARCH INITIATED 12:57:05 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     1134 TO ITERATE

100.0% PROCESSED     1134 ITERATIONS                                  50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        20660 TO    24700
PROJECTED ANSWERS:           10624 TO    13574

L2           50 SEA SSS SAM L1

=> d l2 scan

L2   50 ANSWERS   REGISTRY  COPYRIGHT 2009 ACS on STN
IN   Benzeneacetic acid, 4-[[2-amino-4-methyl-6-(pentylamino)-5-
     pyrimidinyl]methyl]-, 4-[4-(dimethylamino)-1-piperidinyl]butyl ester,
     compd. with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:?)
MF   C30 H48 N6 O2 . x C7 H5 N O3 S

     CM   1
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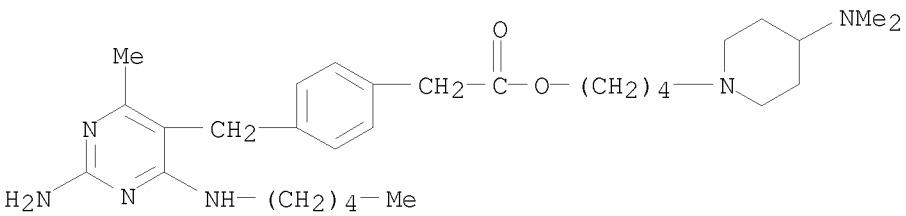

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     CM   2
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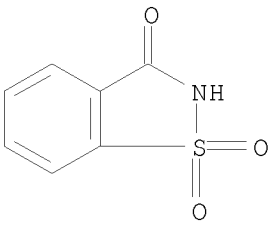

```
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L2   50 ANSWERS   REGISTRY  COPYRIGHT 2009 ACS on STN
IN   1,2-Benzisothiazol-3(2H)-one, 2-[4,5-dihydro-3-[2-(4-piperidinyl)-4-
     thiazolyl]-5-isoxazolyl]-, 1,1-dioxide
MF   C18 H18 N4 O4 S2
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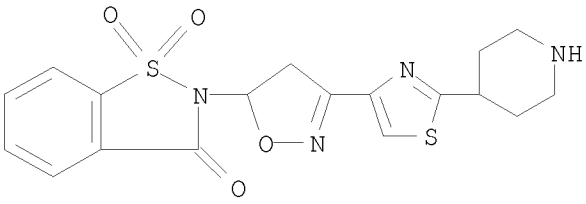
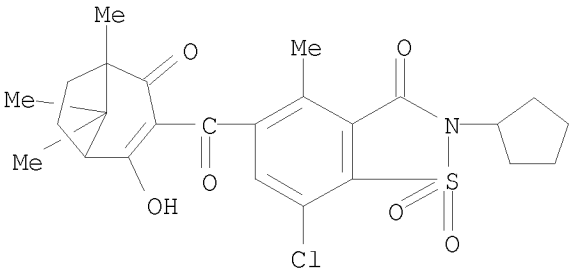


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN INDEX NAME NOT YET ASSIGNED
MF C25 H28 Cl N O6 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

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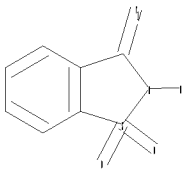
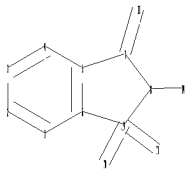
Uploading C:\Program Files\STNEXP\Queries\10539625saccharin2.str





chain nodes :
10 11 13 14
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
7-13 8-14 9-10 9-11
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
5-7 6-9 7-8 7-13 8-9 9-10 9-11
exact bonds :
8-14
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:O,S

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 13:CLASS 14:CLASS

L3 STRUCTURE UPLOADED

=> s l3
SAMPLE SEARCH INITIATED 12:57:53 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1134 TO ITERATE

100.0% PROCESSED 1134 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

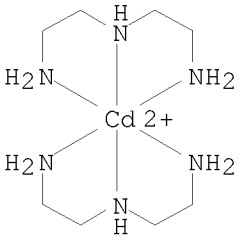
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 20660 TO 24700
PROJECTED ANSWERS: 1013 TO 2065

L4 50 SEA SSS SAM L3

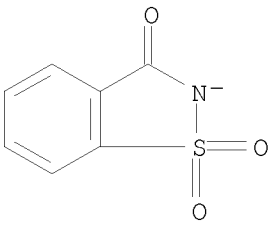
=> d l4 scan

L4 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Cadmium(2+), bis[N-[2-(amino-κN)ethyl]-1,2-ethanediamine-κN,κN']-, (OC-6-2'2)-, salt with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:2) (9CI)
MF C8 H26 Cd N6 . 2 C7 H4 N O3 S

CM 1



CM 2

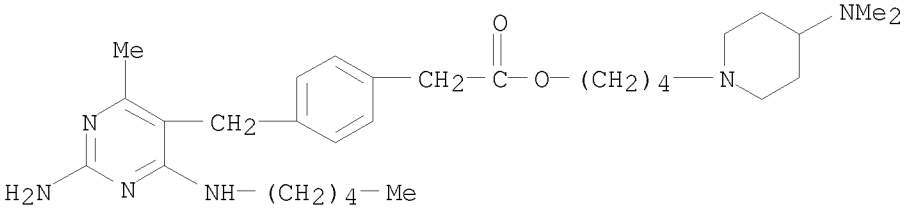


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

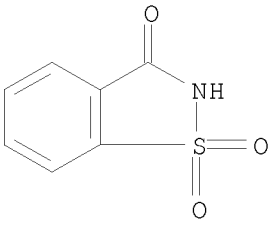
L4 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN Benzeneacetic acid, 4-[[2-amino-4-methyl-6-(pentylamino)-5-pyrimidinyl]methyl]-, 4-[4-(dimethylamino)-1-piperidinyl]butyl ester, compd. with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:?)

MF C30 H48 N6 O2 . x C7 H5 N O3 S

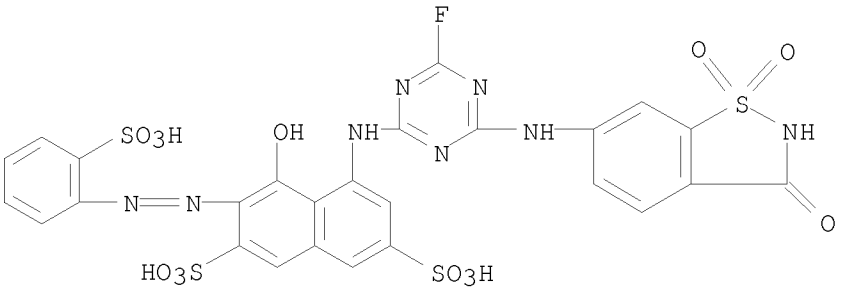
CM 1



CM 2



L4 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN 2,7-Naphthalenedisulfonic acid, 5-[[4-[(2,3-dihydro-1,1-dioxido-3-oxo-1,2-benzisothiazol-6-yl)amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-(2-sulfophenyl)diazenyl]-
MF C26 H17 F N8 O13 S4



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

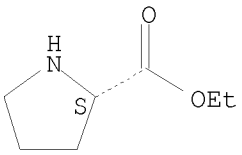
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L4 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN

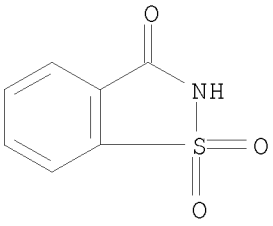
IN L-Proline, ethyl ester, compd. with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:1)
MF C7 H13 N O2 . C7 H5 N O3 S

CM 1

Absolute stereochemistry. Rotation (-).

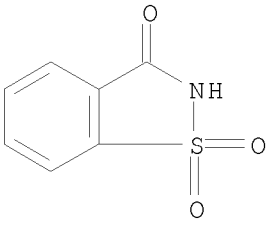


CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L4 50 ANSWERS REGISTRY COPYRIGHT 2009 ACS on STN
IN 1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, mercury(2+) salt, hydrate (2:1:2)
MF C7 H5 N O3 S . H2 O . 1/2 Hg



● 1/2 Hg(II)

● H_2O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s l3 sss full
FULL SEARCH INITIATED 12:58:19 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 21457 TO ITERATE

100.0% PROCESSED 21457 ITERATIONS 1636 ANSWERS
SEARCH TIME: 00.00.01

L5 1636 SEA SSS FUL L3

=> file hcaplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	186.84	187.06

FILE 'HCAPLUS' ENTERED AT 12:58:23 ON 07 AUG 2009
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FILE COVERS 1907 - 7 Aug 2009 VOL 151 ISS 7
FILE LAST UPDATED: 6 Aug 2009 (20090806/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family
of databases have been updated to include new citing references
information. This enhancement may impact record import into
database management software. For additional information, refer
to NEWS 22.

=> s l5
L6 9084 L5

```
=> s oligonucleotide or DNA or RNA or phosphoramidite
         64854 OLIGONUCLEOTIDE
        970615 DNA
        377627 RNA
          3487 PHOSPHORAMIDITE
L7     1230959 OLIGONUCLEOTIDE OR DNA OR RNA OR PHOSPHORAMIDITE

=> s l6 and l7
L8         112 L6 AND L7

=> s l8 and (PY<2003 or AY<2003 or PRY<2003)
      22984528 PY<2003
       4509429 AY<2003
       3978924 PRY<2003
L9           80 L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file stnguide
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   2.85     189.91

FILE 'STNGUIDE' ENTERED AT 12:59:16 ON 07 AUG 2009
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 31, 2009 (20090731/UP).

=> file hcaplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   0.28     190.19

FILE 'HCAPLUS' ENTERED AT 13:01:55 ON 07 AUG 2009
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```



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FILE COVERS 1907 - 7 Aug 2009  VOL 151 ISS 7
FILE LAST UPDATED: 6 Aug 2009  (20090806/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Jun 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Jun 2009

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html
```

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

```
=> s (solid support) or (solid phase) or bead or phosphoramidite

       1212925 SOLID
        573616 SUPPORT
          9921 SOLID SUPPORT
                 (SOLID(W)SUPPORT)
       1212925 SOLID
       2008323 PHASE
        120201 SOLID PHASE
                 (SOLID(W)PHASE)
         35676 BEAD
          3487 PHOSPHORAMIDITE
L10     164283 (SOLID SUPPORT) OR (SOLID PHASE) OR BEAD OR PHOSPHORAMIDITE

=> s l9 and l10

L11           4 L9 AND L10

=> file stnguide

COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                   2.85     193.04

FILE 'STNGUIDE' ENTERED AT 13:01:57 ON 07 AUG 2009
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 31, 2009 (20090731/UP).

=> d l11 1-4 ti abs bib
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y



L11  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2009 ACS on STN
TI   Process for the solid phase preparation of
     oligodeoxyribonucleotides using heterocycle activators
GI
```

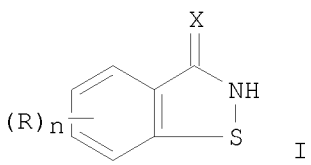

I

AB A process for the synthesis of an oligonucleotide is provided in which an oligonucleotide is assembled on a swellable solid support using the phosphoramidite approach in the presence of an activator I, wherein n is 0-4; R for each occurrence is a substituent, or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsatd. ring; and X is O or S; the activator is not tetrazole or a substituted tetrazole. Preferred activators are pyridinium, imidazolinium and benzimidazolinium salts; benzotriazole and derivs. thereof; and saccharin or a saccharin derivative Preferred swellable solid supports comprise functionalized polystyrene, partially hydrolyzed polyvinyl-acetate or poly(acrylamide).

AN 2004:534221 HCAPLUS <<LOGINID::20090807>>
DN 141:54582

TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators

IN Mccormac, Paul
PA Avecia Limited, UK

SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004055036	A1	20040701	WO 2003-GB5464	20031216 <--
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	WO 2003091267	A1	20031106	WO 2003-GB1795	20030425 <--
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2510477	A1	20040701	CA 2003-2510477	20031216 <--
	AU 2003292423	A1	20040709	AU 2003-292423	20031216 <--
	EP 1575975	A1	20050921	EP 2003-768001	20031216 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
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	CN 100384864	C	20080430		
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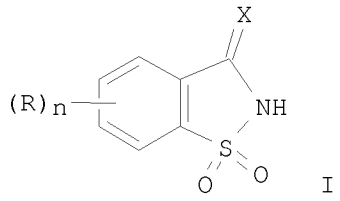
	US 20060149052	A1	20060706	US 2006-539625	20060103 <--
PRAI	GB 2002-29443	A	20021218 <--		
	WO 2003-GB1795	A	20030425		
	GB 2002-9539	A	20020426 <--		

WO 2003-GB5464 W 20031216
OS CASREACT 141:54582; MARPAT 141:54582
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation and phosphitylation process of nucleosides in presence of imidazole sulfonamide activators
GI



I

AB A process for the phosphitylation of an alc. or thiol with a phosphitylation agent in the presence of sulfonamide activator I, wherein n is 0 or an integer from 1 to 4; R for each occurrence is a substituent; X is O or S; is provided. The activator is commonly employed as a salt complex with an organic base. Preferred alcs. or thiols include nucleosides and oligonucleotides. The process is particularly suited for the synthesis of phosphoramidites. Thus, 5'-DMT-N-Bz-2'-deoxyadenosine was prepared and submitted to phosphitylation with O-3-cyanoethyl-N,N,N',N'-tetraisopropylphosphorodiamidite in presence of N-methylimidazole salt of saccharin to give the corresponding nucleoside phosphoramidite in good yield.
AN 2004:354958 HCAPLUS <<LOGINID::20090807>>
DN 140:339578
TI Preparation and phosphitylation process of nucleosides in presence of imidazole sulfonamide activators
IN Sinha, Nanda Dulal
PA Avecia Biotechnology Inc., USA; Avecia Limited
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004035599	A1	20040429	WO 2003-GB4312	20031008 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2501565	A1	20040429	CA 2003-2501565	20031008 <--
AU 2003269239	A1	20040504	AU 2003-269239	20031008 <--
EP 1554300	A1	20050720	EP 2003-751018	20031008 <--
EP 1554300	B1	20070523		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN	1705675	A	20051207	CN 2003-80101403	20031008 <--
CN	1329408	C	20070801		
JP	2006508081	T	20060309	JP 2004-544427	20031008 <--
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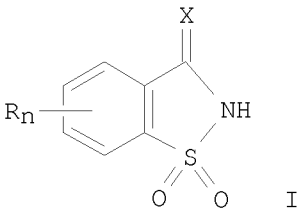
IN	2005DN01348	A	20090109	IN 2005-DN1348	20050404 <--
US	20060069247	A1	20060330	US 2005-531323	20051011 <--
US	7247720	B2	20070724		
PRAI US	2002-418185P	P	20021015 <--		
WO	2003-GB4312	W	20031008		

OS MARPAT 140:339578
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN
TI Preparation of oligodeoxyribonucleotides via condensation reaction using 1,1-dioxo-1,2-dihydro-1λ6-benzo[d]isothiazol-3-one salt activators
GI



I

AB A process for the synthesis of oligonucleotides using phosphoramidite chemical is provided. The process employs as activator a 1,1-dioxo-1,2-dihydro-1λ6-benzo[d]isothiazol-3-one, preferably in the presence of an organic base. The 1,1-dioxo-1,2-dihydro-1λ6-benzo[d]isothiazol-3-one is represented by the following structural formula I; wherein n is 0 or an integer from 1 to 4; X is O or S; R for each occurrence is a substituent, preferably each independently, a halo, a substituted or unsubstituted aliphatic group, -NR1R2, -OR3, -OC(O)R3, -C(O)OR3, or cyano; or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsatd. ring; R1 and R2 are each, independently, H, a substituted or unsubstituted aliphatic group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted aralkyl group; and R3 is a substituted or unsubstituted aliphatic group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted aralkyl group. Preferred organic bases are pyridine, 3-methylpyridine, or N-methylimidazole. Thus, 5'-TCTCCCAGCGTGCGCCAT-3' was prepared via condensation reaction using salt activator 1,1-dioxo-1,2-dihydro-1λ6-benzo[d]isothiazol-3-one and N-methylimidazole.
AN 2003:42287 HCAPLUS <<LOGINID::20090807>>
DN 138:90027
TI Preparation of oligodeoxyribonucleotides via condensation reaction using 1,1-dioxo-1,2-dihydro-1λ6-benzo[d]isothiazol-3-one salt activators
IN Sinha, Nanda; Zedalis, William Edward; Miranda, Gregory Keith
PA Avecia Biotechnology Inc., USA; Avecia Limited
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003004512	A1	20030116	WO 2002-GB3029	20020701 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	EP 1404696	B1	20060208		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
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	IN 2003DN02244	A	20060120	IN 2003-DN2244	20031223 <--
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PRAI	US 2001-302717P	P	20010703	<--	
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	US 2004-482441	A1	20040813		

OS MARPAT 138:90027

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Synthesis and Properties of Aminoacylamido-AMP: Chemical Optimization for the Construction of an N-Acyl Phosphoramidate Linkage

AB This paper describes the design and synthesis of a new type of aminoacyl-adenylate analog (aa-AMPN) having an N-acyl phosphoramidate linkage where the oxygen atom of the mixed anhydride bond of aminoacyl-adenylate (aa-AMP) is replaced by an amino group. This new type of aa-AMP analog is expected to be useful as material for studies on the recognition mechanism of the aminoacylation of tRNA and other biochem. reactions. The condensation of phosphoramidite derivs. of carboxamides with nucleoside derivs. failed, because the activated phosphoramidite derivs. reacted with not only the hydroxyl groups but also another reactive species. An alternative approach was examined by the reaction of 5'-O-phosphoramidite adenosine derivs. with carboxamide derivs. The TBTr and TSE groups were chosen for protection of the amino group of amino acid amides and the phosphate group, resp. Detailed studies revealed that the use of 5-(3,5-dinitrophenyl)-1H-tetrazole as an activating catalyst of phosphoramidites resulted in rapid condensation within 10 min to give fully protected aa-AMPN derivs. No side reaction occurred. Deprotection

of these products via a two-step procedure gave aa-AMPN derivs. in good yields. It also turned out that aa-AMPNs thus obtained are stable under both acidic and basic conditions, such as 0.1 M HCl (pH 1.0) and 0.1 M NaOH (pH 13.0).

AN 2000:767110 HCAPLUS <<LOGINID::20090807>>

DN 134:71818

TI Synthesis and Properties of Aminoacylamido-AMP: Chemical Optimization for the Construction of an N-Acyl Phosphoramidate Linkage

AU Moriguchi, Tomohisa; Yanagi, Terukazu; Kunimori, Masao; Wada, Takeshi; Sekine, Mitsuo

CS Faculty of Life Science, Tokyo Institute of Technology, Midoriku Yokohama, 226-8501, Japan

SO Journal of Organic Chemistry (2000), 65(24), 8229-8238
CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

OS CASREACT 134:71818

OSC.G 25 THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25 CITINGS)

RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT